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                 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2
                 "Ask CAS" for self-help around the clock
NEWS 3
        OCT 23
                The Derwent World Patents Index suite of databases on STN
                 has been enhanced and reloaded
NEWS
         OCT 30
                 CHEMLIST enhanced with new search and display field
        NOV 03
                JAPIO enhanced with IPC 8 features and functionality
NEWS 5
NEWS 6
        NOV 10
                 CA/CAplus F-Term thesaurus enhanced
        NOV 10
NEWS 7
                 STN Express with Discover! free maintenance release Version
                 8.01c now available
NEWS 8
        NOV 20
                 CAS Registry Number crossover limit increased to 300,000 in
                 additional databases
        NOV 20
                 CA/CAplus to MARPAT accession number crossover limit increased
NEWS 9
                 to 50,000
        DEC 01
NEWS 10
                 CAS REGISTRY updated with new ambiguity codes
NEWS 11 DEC 11
                CAS REGISTRY chemical nomenclature enhanced
        DEC 14
NEWS 12
                WPIDS/WPINDEX/WPIX manual codes updated
NEWS 13 DEC 14
                GBFULL and FRFULL enhanced with IPC 8 features and
                 functionality
        DEC 18
NEWS 14
                 CA/CAplus pre-1967 chemical substance index entries enhanced
                 with preparation role
NEWS 15
        DEC 18
                CA/CAplus patent kind codes updated
        DEC 18
NEWS 16
                MARPAT to CA/CAplus accession number crossover limit increased
                 to 50,000
NEWS 17
        DEC 18
                MEDLINE updated in preparation for 2007 reload
                CA/CAplus enhanced with more pre-1907 records
NEWS 18 DEC 27
NEWS 19
        JAN 08
                CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 20
        JAN 16
                CA/CAplus Company Name Thesaurus enhanced and reloaded.
                IPC version 2007.01 thesaurus available on STN
NEWS 21
        JAN 16
NEWS 22
        JAN 16
                WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
             MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS
             STN Operating Hours Plus Help Desk Availability
NEWS LOGIN
              Welcome Banner and News Items
NEWS IPC8
              For general information regarding STN implementation of IPC 8
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Enter NEWS followed by the item number or name to see news on that specific topic.

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X.25 communication option no longer available

NEWS X25

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FILE 'HOME' ENTERED AT 13:39:23 ON 17 JAN 2007

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Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):

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Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 16 JAN 2007 HIGHEST RN 917560-96-4 DICTIONARY FILE UPDATES: 16 JAN 2007 HIGHEST RN 917560-96-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>

Uploading C:\Program Files\Stnexp\Queries\10556229.str

chain nodes :

10 11 12 13 14 15 18

ring nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

6-10 10-11 11-12 12-13 12-15 13-14 13-18

ring bonds :

1-2 1-7 2-3 3-4 4-8 5-6 5-9 6-7 7-8 8-9

exact/norm bonds :

5-6 5-9 6-7 6-10 8-9 12-13 12-15 13-18

exact bonds :

10-11 11-12 13-14

normalized bonds :

1-2 1-7 2-3 3-4 4-8 7-8

isolated ring systems :

containing 1:

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 18:CLASS

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1

Structure attributes must be viewed using STN Express query preparation.

=> S L1
SAMPLE SEARCH INITIATED 13:39:57 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1117 TO ITERATE

100.0% PROCESSED 1117 ITERATIONS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:

ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 20335 TO 24345 1351

PROJECTED ANSWERS: 529 TO

47 SEA SSS SAM L1 1.2

=> S L1 SSS FULL

FULL SEARCH INITIATED 13:40:05 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 22839 TO ITERATE

100.0% PROCESSED 22839 ITERATIONS

SEARCH TIME: 00.00.03

947 ANSWERS

47 ANSWERS

L3 947 SEA SSS FUL L1

=> FIL HCAPLUS

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION 172.10 172.31

FULL ESTIMATED COST

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FILE COVERS 1907 - 17 Jan 2007 VOL 146 ISS 4 FILE LAST UPDATED: 16 Jan 2007 (20070116/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3

L4

=> S L4 AND THU

158 THU

2376538 THUS

2376679 THU

(THU OR THUS)

 L_5

39 L4 AND THU

=> S L5 AND VRI

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153 VRI
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           153 VRI
                 (VRI OR VRIS)
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=> S L5 AND PY, =2003
'2003' NOT A VALID FIELD CODE
             0 \text{ PY}, = 2003
L8
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=> S L5 AND PY<=2003
      23914968 PY<=2003
L9
           32 L5 AND PY<=2003
=> D L9 IBIB AGS HITSTR 1-15
'AGS' IS NOT A VALID FORMAT FOR FILE 'HCAPLUS'
The following are valid formats:
ABS ----- GI and AB
ALL ----- BIB, AB, IND, RE
APPS ----- AI, PRAI
BIB ----- AN, plus Bibliographic Data and PI table (default)
CAN ----- List of CA abstract numbers without answer numbers
CBIB ----- AN, plus Compressed Bibliographic Data .
CLASS ----- IPC, NCL, ECLA, FTERM
DALL ----- ALL, delimited (end of each field identified)
DMAX ----- MAX, delimited for post-processing
FAM ------ AN, PI and PRAI in table, plus Patent Family data FBIB ----- AN, BIB, plus Patent FAM
IND ----- Indexing data
IPC ----- International Patent Classifications
MAX ----- ALL, plus Patent FAM, RE
PATS ----- PI, SO
SAM ----- CC, SX, TI, ST, IT
SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB, CLASS
IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels
IMAX ----- MAX, indented with text labels
ISTD ----- STD, indented with text labels
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
HIT ----- Fields containing hit terms
HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
             containing hit terms
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HITRN ----- HIT RN and its text modification HITSTR ----- HIT RN, its text modification, its CA index name, and its structure diagram HITSEQ ----- HIT RN, its text modification, its CA index name, its structure diagram, plus NTE and SEQ fields FHITSTR ---- First HIT RN, its text modification, its CA index name, and its structure diagram FHITSEQ ---- First HIT RN, its text modification, its CA index name, its structure diagram, plus NTE and SEQ fields KWIC ----- Hit term plus 20 words on either side OCC ------ Number of occurrence of hit term and field in which it occurs To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI, AU; BIB, ST; TI, IND; TI, SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification. All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number. ENTER DISPLAY FORMAT (BIB): END => D HIS (FILE 'HOME' ENTERED AT 13:39:23 ON 17 JAN 2007) FILE 'REGISTRY' ENTERED AT 13:39:35 ON 17 JAN 2007 L1STRUCTURE UPLOADED L2 47 S L1 L3 947 S L1 SSS FULL FILE 'HCAPLUS' ENTERED AT 13:40:18 ON 17 JAN 2007 L4102 S L3 L5 39 S L4 AND THU L6 0 S L5 AND VRI L7 0 S L5 AND VR1 L8 0 S L5 AND PY,=2003 L9 32 S L5 AND PY<=2003 => D L9 IBIB ABS HITSTR 1-15 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN 2003:633705 HCAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 139:180070 TITLE: Preparation of 2-(4-amino-1,2,5-oxadiazol-3yl)benzimidazoles as inhibitors of GSK-3 Harbeson, Scott L.; Arnost, Michael J.; Green, Jeremy; INVENTOR (S): Savic, Vladimir PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA PCT Int. Appl., 93 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

GI

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20030814
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                                                                     20030206 <--
     WO 2003066629
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
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                                             US 2002-354843P
PRIORITY APPLN. INFO.:
                                                                  Р
                                                                     20020206
                                             WO 2003-US3655
                                                                  W
                                                                     20030206
OTHER SOURCE(S):
                         MARPAT 139:180070
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AB The title compds. [I; ring A = (un)substituted 5-7 membered (un)saturated ring having 0-3 heteroatoms, and wherein ring A is optionally fused to 5-8 membered ring having 0-3 heteroatoms; ring B = (un)substituted 5-6 membered ring having 0-4 heteroatoms; W = N, CR4; X = N, CH (wherein at least one of W and X = N); R3 = TCN, LR; T = a bond, alkylidene; L = a bond, alkylidene wherein up to two methylene units of L are replaced by O, S, CO, etc.; R4 = LR, halo, TNO2, TCN; R = H, alkyl, aryl, etc.], useful as inhibitors of GSK-3 and Lck protein kinases (biol. data given) for treating and preventing various disorders, such as diabetes, Alzheimer's disease, and transplant rejection, were prepared Thus, reacting 1,2-phenylenediamine with Me 4-aminofurazan-3-carboximidate in the presence of AcOH in MeOH afforded 76% II. A pharmaceutical composition comprising the title compound I, was claimed. IT 581081-66-5P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 2-(4-amino-1,2,5-oxadiazol-3-yl)benzimidazoles as inhibitors of GSK-3)

II

RN 581081-66-5 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-(4-amino-1,2,5-oxadiazol-3-yl)-N-methyl-(9CI) (CA INDEX NAME)

IT 384860-19-9P 581081-53-0P 581081-61-0P

581081-68-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-(4-amino-1,2,5-oxadiazol-3-yl)benzimidazoles as inhibitors of GSK-3)

RN 384860-19-9 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-(4-amino-1,2,5-oxadiazol-3-yl)-N-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

RN 581081-53-0 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-(4-amino-1,2,5-oxadiazol-3-yl)-N-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

RN 581081-61-0 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, N-(2-aminoethyl)-2-(4-amino-1,2,5-oxadiazol-3-yl)- (9CI) (CA INDEX NAME)

RN 581081-68-7 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-(4-amino-1,2,5-oxadiazol-3-yl)-N-(2-amino-2-oxoethyl)- (9CI) (CA INDEX NAME)

L9 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:185081 HCAPLUS

DOCUMENT NUMBER:

136:247498

TITLE:

Acylaminoalkylpiperidines as chemokine and H1 receptor

antagonists

INVENTOR (S):

Sanganee, Hitesh; Springthorpe, Brian

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.

PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

1

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA | | | | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | |
|----|------|------|-----|-----|-----------------|-------------------|------|------|-------------------------|------|------|------|-----|-----|----------|-------|-------|--|
| WO | 2002 | 0204 | 84 | | A1 | : | 2002 | 0314 | , | WO 2 | 001- | SE18 | 69 | | 2 | 00108 | 330 < | |
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| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | ΚP, | KR, | ΚZ, | LC, | LK, | LR, | |
| | | LS; | LT, | LU, | LV, | LV, MA, MD, MG, N | | | | MN, | MW, | MX, | MZ, | NO, | NZ, | PH, | PL, | |
| | | PT, | RO, | RU, | SD, SE, SG, SI, | | | | SK, | SL, | ТJ, | TM, | TT, | TZ, | UA, | UG, | | |
| | | US, | UZ, | VN, | ΥU, | ZA, | ZW, | AM, | ΑZ, | BY, | KG, | ΚZ, | MD, | RU, | TJ, | TM | | |
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| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, | |
| | | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | |
| AU | 2001 | 0845 | 84 | | A5 | ; | 2002 | 0322 | | AU 2 | 001- | 8458 | 4 | | 2 | 0010 | 330 < | |
| ΕP | 1322 | 611 | | | A1 20030702 | | | | | EP 2 | 001- | 9636 | 55 | | 2 | 0010 | 330 < | |
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| | | IE, | SI, | LT, | LV, FI, RO, MK, | | | | CY, AL, TR | | | | | | | | | |
| JΡ | 2004 | 5083 | 55 | | T 20040318 | | | | | JP 2 | 002- | 5251 | 06 | | 20010830 | | | |

US 2004102432 A1 20040527 US 2003-344758 PRIORITY APPLN. INFO.: GB 2000-21670

US 2003-344758 20030213 GB 2000-21670 A 20000904 WO 2001-SE1869 W 20010830

OTHER SOURCE(S):

MARPAT 136:247498

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$$R^{10}$$
 \sim $N(CH_2)_n(CR^2R^3)_m(CH_2)_qNR^4COR^5$

$$C1$$
 $N(CH_2)_3NH$
 SO_2Me II

AB Title compds. I [R1 = (un)substituted Ph; n = 1-4; m = 0, 1; when m = 0, q = 0; when m = 1, q = 1-4; R2, R3 = H, alkyl, R4 = H, alkyl, cycloalkylalkyl, R5 = substituted cyclic, heterocyclic; R2 = (un)substituted Ph, R3 = H, alkyl, R4 = H, alkyl, alkoxy, R5 = substituted cyclic, heterocyclic] were prepared for use as chemokine and H1 receptor antagonists in the treatment of asthma and rhinitis (no data). Thus, 3,4-Cl2C6H3OH was treated with 1-tert.-butoxycarbonyl-4-piperidinol, deblocked, treated with Br(CH2)3NHBoc, and deblocked to give the piperidine II as its hydrochloride.

IT 404030-44-0P 404030-45-1P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of acylaminoalkylpiperidines as chemokine and H1 receptor antagonists)

RN 404030-44-0 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, N-[2-[4-(3,4-dichlorophenoxy)-1-piperidinyl]ethyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 404030-45-1 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, N-[2-[4-(3,4-dichlorophenoxy)-1-piperidinyl]ethyl]-2-(ethylthio)- (9CI) (CA INDEX NAME)

L9 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

3

ACCESSION NUMBER: 2001:923615 HCAPLUS

DOCUMENT NUMBER: 136:37623

TITLE: Preparation of imidazopyridine and imidazopyrimidine

antiviral agents

INVENTOR(S): Yu, Kuo-Long; Civiello, Rita L.; Combrink, Keith D.;

Gulgeze, Hatice Belgin; Sin, Ny; Wang, Xiangdong;

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Meanwell, Nicholas A.; Venables, Brian Lee

PATENT ASSIGNEE(S):

REFERENCE COUNT:

: Bristol-Myers Squibb Company, USA

SOURCE: PCT Int. Appl., 196 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: Engangle En

PATENT INFORMATION:

| | | | | | | | | | | APPLICATION NO. | | | | | | | | | |
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| | WO | 2001 | 0959 | 10 | | | | | | | | | | | | 2 | 0010 | 508 | < |
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| | | | HR, | HU, | ID, | IL, | IN, | ıs, | JP, | KE, | KG, | KP. | KR. | KZ. | LC. | LK. | LR. | LS. | |
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| | | RW: | GH, | GM, | KE, | LS, | MW. | MZ, | SD, | SL, | SZ. | TZ. | UG. | ZW. | AT. | BE. | CH. | CY. | |
| | | | | | | | | | GR, | | | | | | | | | | |
| | | | | | | | | | GN, | | | | | | | | , | | |
| | US | 2002 | | | | | | | | | | | | | | | 0010 | 423 | < |
| | | 6489 | | | | | | | | | | | | _ | | | | | |
| | CA | 2412 | 327 | | | A1 | | 2001 | 1220 | 1 | CA 2 | 001- | 2412 | 327 | | 2 | 0010 | 508 | < |
| | | 2001 | | | | | | | | | | | | | | | | | |
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| | JΡ | 2004 | | | | | | | 0205 | | | | | 88 | | 2 | 0010 | 508 | |
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| | | 5235 | | | | | | | 0827 | | | | | | | | | | |
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| PRIO | | APP | | | | | | | | | US 2 | 000- | 2114 | 47P |] | P 2 | 0000 | 613 | |
| | | | | | | | | | | 1 | US 2 | 001- | 2633 | 63P | | P 2 | 0010 | 122 | |
| | | | | | | | | | | | | | US14 | | | | 0010 | | |
| OTHE | R S(| DURCE | (S): | | | MAR | PAT | 136. | 3762 | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 136:37623

GI

AB The title compds. [I; W = O, S; R1 = (CR'R'')nX; X = H, alkyl, cycloalkyl, etc.; n = 2-6; R2 = H, alkyl, cycloalkyl, etc.; R3-R6 = H, halo, alkyl, etc.; A, B, E, D = CH, CQ, N, NO; provided at least one of A, B, E or D is not CH or CQ; Q = halo, alkyl, alkyl substituted with 1-3 halogen atoms; R', R'' = H, alkyl, cycloalkyl, etc.], useful in the treatment of viral infections, more particularly, for the treatment of respiratory syncytial virus infection, were prepared Thus, reacting I [W = O; R1 = (CH2)3NH2; R2 = cyclopropyl; R3-R6 = H; E = N; A, B, D = CH] (preparation given) with N-chloroacetylurethane in the presence of Na2CO3 in MeCN afforded 39% II.TFA. The compds. I showed antiviral activity against RSV with EC50's between 50 μM and 0.001 μM vs. Ribavirin with an EC50 of 3 μM.

IT 380603-71-4P 380603-73-6P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(preparation of imidazopyridine and imidazopyrimidine antiviral agents) 380603-71-4 HCAPLUS

CN 1H-Benzimidazole-1-butanamide, 2-[(1-cyclopropyl-1,2-dihydro-2-oxo-3H-imidazo[4,5-c]pyridin-3-yl)methyl]-N-(2,2,2-trifluoroethyl)- (9CI) (CA INDEX NAME)

RN 380603-73-6 HCAPLUS

CN 1H-Benzimidazole-1-butanamide, 2-[(1-cyclopropyl-1,2-dihydro-2-oxo-3H-imidazo[4,5-c]pyridin-3-yl)methyl]-N-methyl- (9CI) (CA INDEX NAME)

RN

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2007 ACS ON STN

1

ACCESSION NUMBER:

2001:668212 HCAPLUS

DOCUMENT NUMBER:

135:226999

TITLE:

Preparation of 2-azolylpyrrolidine or -piperidine

derivatives having neurite outgrowth activity Kato, Susumu; Ueno, Hiroshi; Kondo, Wataru

INVENTOR(S):
PATENT ASSIGNEE(S):

Japan Tobacco, Inc., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|------------------------|--------|------------|-----------------|---|------------|
| | | | | - | |
| JP 2001247569 | Α | 20010911 | JP 2000-236882 | | 20000804 < |
| PRIORITY APPLN. INFO.: | | | JP 1999-228938 | Α | 19990812 |
| | | | JP 1999-375867 | Α | 19991228 |
| OTHER SOURCE(S): | MARPAT | 135:226999 | | | |

GI

$$Q = X^{4} \qquad Q^{1} = X^{4} \qquad Q^{2} = X^{4-N} \qquad Q^{3} = X^{4-N} \qquad Q^{3} = X^{4-N} \qquad Q^{4} = X^{4} \qquad Q^{5} = R^{3} \qquad Q^{6} = X^{4-N} \qquad Q^{6$$

AB The title compds. [I; R1 = H, (un) substituted C3-10 cycloalkyl, C6-12 aryl, or 5- to 6-membered heterocyclyl containing 1-3 heteroatoms selected from O, S, and N; R2 = C1-6 alkyl, C3-10 cycloalkyl, C6-12 aryl, or 5- to 6-membered heterocyclyl containing 1-3 heteroatoms selected from O, S, and N; R21 = H, C1-6 alkyl; X1 = single bond, O, S, SO, SO2, CH:CH, CO, CO2, NR10, CONR10, NR10CO, NR11CONR10, NR10SO2, SO2NR10, CR10R11 [wherein R10 = H, (CH2)nR12 (wherein n = 1-4; R12 = C3-10 cycloalkyl, C6-12 aryl, or 5to 6-membered heterocyclyl containing 1-3 heteroatoms selected from O, S, and N); R11 = H, C1-6 alkyl]; Y1 = arylene, heteroarylene, (CH2)p (wherein p = 0, 1-4); X2 = S02, COCO, CO2, CO, C(S), CONR14, C(S)NR14 (wherein R14 = H, C1-6 alkyl); Y = (CH2)r (wherein r = 0, 1-3), CH:CH; m = 0, 1-4; ring B = Q - Q6 [wherein R3 = H, C1-6 alkyl; X4 = O, S, NR4 (wherein R4 = H, C1-6 alkyl)], (un)substituted condensed heterocyclyl], salts thereof, or their hydrates or prodrugs are prepared These compds. are superior in serum stability and can be administered orally and are useful for the treatment and/or prevention of diseases accompanied by nerve injury or neurodegeneration, e.g. diabetic nerve disorders, neuropathy, nerve cutting, amyotrophic lateral sclerosis (ALC), multiple sclerosis, Alzheimer's diseases, Parkinson's diseases, Huntington chorea, and spinal code injury. Thus, 464 mg 7-chloronaphth-2-ylsulfonyl chloride was added to a solution of 507 mg 5-(5-benzyloxycarbonylaminomethyl-1,3,4thiadiazol-2-yl)pyrrolidine (preparation given) in pyridine and stirred at room temperature for 3 h to give 706 mg 1-(7-chloronaphthalen-2-ylsulfonyl)-2-(5benzyloxycarbonylaminomethyl-1,3,4-thiadiazol-2-yl)pyrrolidine which (678 mg) was treated with 25% HBr-AcOH at room temperature for 1 h and treated with diisopropyl ether for precipitating crystals, followed by neutralizing the

crystals with 1 N aqueous NaOH and extraction with CH2Cl2 to give 472 mg 1-(7-chloronaphthalen-2-ylsulfonyl)-2-(5-aminomethyl-1,3,4-thiadiazol-2-yl)pyrrolidine. To a solution of the latter compound (164 mg) in 2 mL pyridine was added 143 mg nicotinoyl chloride hydrochloride and stirred at room temperature for 30 min to give 183 mg N-[5-[1-(7-chloronaphthalene-2-sulfonyl)pyrrolidin-2-yl]-1,3,4-thiadiazol-2-yl]methyl-3-pyridinecarboxamide (II). II at 10 nM in vitro exhibited the enhancement of the NGF-induced neurite outgrowth in PC12h cells equivalent to that of 100 nM FK-506.

IT 359802-97-4P 359802-98-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-azolylpyrrolidine or -piperidine derivs. having neurite outgrowth activity for treatment and/or prevention of nerve injury or neurodegenerative diseases)

RN 359802-97-4 HCAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[1-[2-oxo-2-[[2-(3pyridinyl)ethyllaminolethyll-1H-benzimidazol-2-yll-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN359802-98-5 HCAPLUS

1H-Benzimidazole-1-acetamide, 2-[1-[(4-chlorophenyl)sulfonyl]-2-CN pyrrolidinyl]-N-[2-(3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

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L9 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:241749 HCAPLUS

DOCUMENT NUMBER:

134:266310

TITLE:

Preparation of 2-aryl-benzimidazoles for treating

INVENTOR(S):

neoplasia Sperl, Gerhard; Ixkes, Ulrich; Pamukcu, Rifat; Piazza,

PATENT ASSIGNEE(S):

Gary A. Cell Pathways, Inc., USA

SOURCE:

U.S., 12 pp.

DOCUMENT TYPE:

CODEN: USXXAM

LANGUAGE:

Patent

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|-----------------|------------|
| | | | | |
| US 6211177 | Bl | 20010403 | US 1998-200378 | 19981124 < |
| PRIORITY APPLN. INFO.: | | | US 1998-200378 | 19981124 |
| OTHER SOURCE(S): | MARPAT | 134:266310 | | |
| GI | | | | |

$$\begin{bmatrix} \mathbb{R}^3 \end{bmatrix}_n \xrightarrow{\mathbb{N}} \mathbb{R}^2$$

The title compds. [I; R1 = H, alkyl, (un) substituted CH2Ph, etc.; R2 = (un) substituted Ph, CH2Ph, pyridyl, etc.; R3 = halo, alkoxy, alkyl, etc.; n = 0-2], useful for inhibiting neoplasia, particularly cancerous and precancerous lesions (no data), were prepared Thus, reacting 1,2-phenylenediamine with 3,4,5-trimethoxybenzaldehyde in the presence of 2,3-dichloro-5,6-dicyano-1,4-benzoquinone in MeCN afforded 14% I [R1, R3 = H; R2 = 3,4,5-(MeO) 3C6H2].

IT 332015-21-1P 332015-24-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-aryl-benzimidazoles for treating neoplasia)

RN 332015-21-1 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 5-methoxy-N-(phenylmethyl)-2-(3,4,5-trimethoxyphenyl)- (9CI) (CA INDEX NAME)

RN 332015-24-4 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 5-fluoro-N-(phenylmethyl)-2-(3,4,5-trimethoxyphenyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \text{OMe} \\ \\ \text{OMe} & \\ \text{OMe} \\ \\ \text{CH}_2-\text{C-NH-CH}_2-\text{Ph} \\ \\ \\ \text{O} \end{array}$$

REFERENCE COUNT:

18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:149048 HCAPLUS

DOCUMENT NUMBER:

134:193454

TITLE:

Preparation of N-(2-benzimidazolyl)-1,4-diazepanes as

histamine and tachykinin receptor antagonists

INVENTOR(S):

Kane, John M.; Maynard, George D.; Burkholder, Timothy

P.; Bratton, Larry D.; Dalton, Christopher R.;

Kudlacz, Elizabeth M.; Santiago, Braulio

PATENT ASSIGNEE(S):

Aventis Pharmaceuticals Inc., USA

SOURCE:

U.S., 108 pp., Cont.-in-part of U.S. Ser. No. 736,411.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|-----------------|-------------|
| | | | | |
| US 6194406 | B1 | 20010227 | US 1997-513847 | 19971029 < |
| US 2001034343 | A1 | 20011025 | US 2000-739741 | 20001218 < |
| US 6423704 . | B2 | 20020723 | · | |
| PRIORITY APPLN. INFO.: | | | US 1995-70907P | 9 19951220 |
| | | | US 1996-736411 | 32 19961024 |
| | | | US 1997-513847 | A2 19971029 |
| OTHER SOURCE(S): | MARPAT | 134:193454 | | |

GI

AB Title compds. [I; R = R5Z5Z4(CH2)m; R1 = (CH2)rR4; R2 = Z3(CH2)nR3; R3 =(un) substituted Ph, -1,3-benzodioxol-5-yl, -1,4-benodioxan-6-yl; R4 = (un)substituted Ph, -naphthyl, pyridinyl, -thienyl; R5 = H, (oxa)alkyl,
(hetero)arylalkyl, etc.; Z,Z2 = CH2 or CO; Z1 = CH2 or CH2CH2; Z3 = CH2, CHMe, CO; Z4 = 1,4-diazepan-1,4-diyl; Z5 = (un)substituted benzimidazole-1,2-diyl; m = 2 or 3; n,r = 0 or 1] were prepared as histamine and tachykinin receptor antagonists (no data). Thus, e.g., I [R = 2-[4-[1-(2-ethoxyethyl)benzimidazol-2-yl][1,4]diazepan-1-yl]ethyl, R1 = $3,4-(MeO)\ 2C6H3$, R2 = COC6H2 (OMe) 3-3,4,5, Z = Z1 = Z2 = CH2] was prepared IT 192941-18-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of benzimidazolyldiazepanes as antiallergics and antiinflammatories)

192941-18-7 HCAPLUS RN

1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-[1-[2-(methylamino)-2-CN. oxoethyl]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) NAME)

IT 192941-57-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursor; preparation of benzimidazolyldiazepanes as antiallergics and
 antiinflammatories)

RN 192941-57-4 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-(hexahydro-1H-1,4-diazepin-1-yl)-N-methyl-, monohydriodide (9CI) (CA INDEX NAME)

● HI

IT 192939-87-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of benzimidazolyldiazepanes as antiallergics and antiinflammatories)

RN 192939-87-0 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-[hexahydro-4-[2-[3-phenyl-1-(3,4,5-trimethoxybenzoyl)-3-pyrrolidinyl]ethyl]-1H-1,4-diazepin-1-yl]-N-methyl-(9CI) (CA INDEX NAME)

IT 327995-85-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzimidazolyldiazepanes as antiallergics and antiinflammatories)

RN 327995-85-7 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-[hexahydro-4-[2-[3-phenyl-1-(3,4,5-trimethoxybenzoyl)-3-pyrrolidinyl]ethyl]-1H-1,4-diazepin-1-yl]-N-methyl-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

REFERENCE COUNT:

59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:115088 HCAPLUS

DOCUMENT NUMBER:

134:178141

TITLE:

Preparation of oxoazacycloalkanes and analogs

INVENTOR(S):

Hulme, Christopher; Morton, George C.; Salvino, Joseph

M.; Labaudiniere, Richard F.; Mason, Helen J.; Morrissette, Mathew M.; Ma, Liang; Cherrier,

Marie-Pierre

PATENT ASSIGNEE(S):

Aventis Pharmaceuticals Products, Inc., USA

SOURCE:

PCT Int. Appl., 176 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA | rent : | NO. | | | KIN | D 1 | DATE | | | APPL | ICAT | ION 1 | NO. | | D | ATE | | |
|----|---------------|------|-----|-----|----------|-----|------------------|------------------|-----|------|------|-------|------------|-----|-----|------|-------|---|
| | | | | | | - | | | | | | | | | _ | | | |
| WO | 2001 | 0107 | 99 | | A1 | : | 2001 | 0215 | 1 | WO 2 | 000- | US21: | 257 | | 2 | 0000 | 303 < | : |
| • | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, | |
| | | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | |
| | | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, | |
| | | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PL, | PT, | RO, | RU, | |
| | | SD, | SE, | SG, | SI, | SK, | SL, | ТJ, | TM, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VN, | |
| | | ΥU, | ZA, | ZW | | | | | | | | | | | | | | |
| | RW: | GH, | GM, | KΕ, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AT, | BE, | CH, | CY, | |
| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | |
| | | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | | |
| US | US 6492553 B1 | | | | 20021210 | | | 0 US 1999-368213 | | | | | 19990804 < | | | | | |
| EP | EP 1212269 | | | | | | 2 EP 2000-955355 | | | | | | 20000803 < | | | | | |

GI ·

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EP 1212269
                                 20041027
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI,
             LT, LV, FI, RO, MK, CY, AL
     JP 2003506420
                           Т
                                 20030218
                                              JP 2001-515272
                                                                      20000803 <--
     AT 280744
                           T
                                 20041115
                                              AT 2000-955355
                                                                      20000803
     ES 2230143
                                              ES 2000-955355
                           T3
                                 20050501
                                                                      20000803
     HK 1046897
                           A1
                                 20050415
                                              HK 2002-108269
                                                                      20021115
PRIORITY APPLN. INFO.:
                                              US 1999-368213
                                                                      19990804
                                                                  Α
                                              US 1998-73007P
                                                                  Р
                                                                      19980129
                                              US 1998-98404P
                                                                  P
                                                                      19980831
                                              US 1998-98708P
                                                                  P
                                                                      19980901
                                              US 1998-101056P
                                                                  P
                                                                      19980918
                                              WO 1999-US1923
                                                                  A2 19990129
                                              WO 2000-US21257
                                                                      20000803
OTHER SOURCE(S):
                          CASREACT 134:178141; MARPAT 134:178141
```

AB The title process comprises, e.g., Ugi condensation of N-protected anthranilic acids, amines, aldehydes, and an isocyanide followed by deprotection and cyclization. Thus, 2-(BocMeN) C6H4CO2H, imidazole-1-propanamine, PhCH2CH2CHO, and an isocyanide were combined to give title compound I. IT 325954-15-2P 325954-16-3P 325954-17-4P 325954-22-1P 325954-24-3P RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation) (preparation of oxoazacycloalkanes and analogs) RN325954-15-2 HCAPLUS CN1H-Benzimidazole-1-acetamide, N-butyl-2,3-dihydro-2-oxo- α -(2phenylethyl) - (9CI) (CA INDEX NAME)

RN 325954-16-3 HCAPLUS
CN 1H-Benzimidazole-1-acetamide, 2,3-dihydro-5,6-dimethoxy-2-oxo-N-

Ι

(phenylmethyl) -α-propyl- (9CI) (CA INDEX NAME)

RN 325954-17-4 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2,3-dihydro-5,6-dimethyl- α -[2-(methylthio)ethyl]-2-oxo-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

Me
$$\stackrel{\text{H}}{\underset{\text{N}}{\bigvee}}$$
 $\stackrel{\text{O}}{\underset{\text{CH-CH}_2-\text{CH}_2-\text{SMe}}{\bigvee}}$ $\stackrel{\text{CH-CH}_2-\text{CH}_2-\text{SMe}}{\underset{\text{O}}{\bigvee}}$

RN 325954-22-1 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, N-butyl-2,3-dihydro-2-oxo- α -(2-phenylethyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} F_3C & H & O \\ \hline & N & \\ & CH-CH_2-CH_2-Ph \\ & C-NHBu-n \\ & O \\ \end{array}$$

RN 325954-24-3 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, N-butyl-2,3-dihydro-6-methoxy-2-oxo- α -(2-phenylethyl)- (9CI) (CA INDEX NAME)

MeO
$$\begin{array}{c} H \\ N \\ O \\ CH-CH_2-CH_2-Ph \\ C-NHBu-n \\ | \\ O \\ \end{array}$$

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:819473 HCAPLUS

DOCUMENT NUMBER:

134:5159

TITLE:

Preparation of tripeptoid analogs as serine protease

inhibitors

INVENTOR (S):

Gyorkos, Albert C.; Spruce, Lyle W.

PATENT ASSIGNEE(S):

Cortech, Inc., USA

SOURCE:

U.S., 107 pp., Cont-in-part of U.S. Ser. No. 761,190.

CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 18

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE |
|---------------------------------------|-----------------|-------------------------|---------------------------------------|
| US 6150334 | A 20001121 | | 19971204 < |
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| | A3 19981015 | | 25572200 |
| | | BG, BR, BY, CA, CH, CN, | CU, CZ, DE, |
| | | HU, ID, IL, IS, JP, KE, | · · · · · · · · · · · · · · · · · · · |
| | | LV, MD, MG, MK, MN, MW, | |
| · · · · · · · · · · · · · · · · · · · | | SI, SK, SL, TJ, TM, TR, | |
| UZ, VN, YU; | ZW | | |
| RW: GH, KE, LS, | MW, SD, SZ, UG, | ZW, AT, BE, CH, DE, DK, | ES, FI, FR, |
| | | PT, SE, BF, BJ, CF, CG, | |
| GN, ML, MR, | NE, SN, TD, TG | | |
| | | AU 1998-55894 | 19971205 < |
| AU 734615 | B2 20010621 | | |
| | | EP 1997-952232 | |
| R: AT, BE, CH, | DE, DK, ES, FR, | GB, GR, IT, LI, LU, NL, | SE, MC, PT, |
| IE, SI, LT, | LV, FI, RO | | • |
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| TR 9901681 | T2 20000321 | | |
| JP 2001507679 | T 20010612 | JP 1998-525656 | 19971205 < |
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|--|--------|-------------|----------------------------------|----|--------------------------------------|------------|----------------------------------|---|
| PRIORITY APPLN. | INFO.: | | | US | 1994-345820 | A2 | 19941121 | |
| | | | | US | 1996-761190 | A2 | 19961206 | |
| | | | | US | 1996-698575 | A1 | 19960815 | |
| | | | | US | 1996-760916 | Α | 19961206 | |
| | | | | US | 1996-761313 | Α | 19961206 | |
| | | | | US | 1996-762381 | Α | 19961206 | |
| | | | | US | 1996-771317 | Α | 19961206 | |
| | | | | US | 1997-984881 | Α | 19971204 | • |
| | | | | US | 1997-984884 | Α | 19971204 | |
| | | | | US | 1997-985056 | Α | 19971204 | |
| | | | | US | 1997-985201 | Α | 19971204 | |
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| • | | | | JP | 1998-525656 | A 3 | 19971205 | |
| • | | | | WO | 1997-US21636 | W | 19971205 | |

OTHER SOURCE(S):

MARPAT 134:5159

Tripeptides I [X, Y = 0, N, or S, provided that at least one of X or Y = N; R1 = (un)substituted (C5-12)aryl, (C5-12)arylalkyl, (C5-12)arylalkenyl, fused (C5-12)aryl-cycloalkyl, alkyl- or alkenyl-fused (C5-12)aryl-cycloalkyl optionally comprising one or more heteroatoms selected from N, S, or non-peroxide O; R2, R3 = H or alkyl; A = CO, NHCO, SO2, O2C, or CH2; R4 = H, alkyl, alkenyl, cycloalkyl, aryl, or arylalkyl (with provisos)] were prepared as serine protease inhibitors, including inhibitors of human neutrophil elastase. Thus, peptide I (Cbz = benzyloxycarbonyl) (CE-2072) was prepared and showed Ki = 0.025 nM for inhibition of elastase. IT 208846-93-9P, CE 2234

01/17/2007

RN

CN

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of tripeptoid analogs as serine protease inhibitors) 208846-93-9 HCAPLUS 1H-Benzimidazole-1-acetamide, N-[(1S)-2-methyl-1-[[5-[(3-methylphenyl)methyl]-1,3,4-oxadiazol-2-yl]carbonyl]propyl]-2-(2-pyridinyl)-

Absolute stereochemistry.

(CA INDEX NAME)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:366135 HCAPLUS

DOCUMENT NUMBER:

133:4595

TITLE:

Preparation of N-pyrrolidinylmethylalkanoamides and

analogs as CCR-3 receptor antagonists

INVENTOR(S):

Rogers, Daniel Harry; Saunders, John; Williams, John

Patrick

PATENT ASSIGNEE(S):

F. Hoffmann-La Roche A.-G., Switz.

SOURCE:

Ger. Offen., 50 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE | | |
|-----------------|-----------------|-------------------------|----------------------|--|--|
| | | | | | |
| DE 19955794 | A1 20000531 | DE 1999-19955794 | 19991119 < | | |
| CA 2350903 | A1 20000602 | CA 1999-2350903 | 19991111 < | | |
| WO 2000031032 | A1 20000602 | WO 1999-EP8665 | 19991111 <- - | | |
| W: AE, AL, AM, | AT, AU, AZ, BA, | BB, BG, BR, BY, CA, CH, | CN, CU, CZ, | | |
| DE, DK, EE, | ES, FI, GB, GD, | GE, GH, GM, HR, HU, ID, | IL, IN, IS, | | |
| JP, KE, KG, | KP, KR, KZ, LC, | LK, LR, LS, LT, LU, LV, | MA, MD, MG, | | |
| MK, MN, MW, | MX, NO, NZ, PL, | PT, RO, RU, SD, SE, SG, | SI, SK, SL, | | |
| TJ, TM, TR, | TT, UA, UG, UZ, | VN, YU, ZA, ZW | | | |
| RW: GH, GM, KE, | LS, MW, SD, SL, | SZ, TZ, UG, ZW, AT, BE, | CH, CY, DE, | | |
| DK, ES, FI, | FR, GB, GR, IE, | IT, LU, MC, NL, PT, SE, | BF, BJ, CF, | | |
| | | MR, NE, SN, TD, TG | | | |
| BR 9915520 | A 20010717 | BR 1999-15520 | 19991111 < | | |
| EP 1131288 | A1 20010912 | EP 1999-972623 | 19991111 < | | |
| R: AT, BE, CH, | DE, DK, ES, FR, | GB, GR, IT, LI, LU, NL, | SE, MC, PT, | | |

| IE, SI, LT | , LV, FI | , RO | | | | | |
|------------------------|----------|----------|----|----------------|-----|----------|---|
| TR 200101398 | T2 | 20010921 | TR | 2001-200101398 | 3 | 19991111 | < |
| HU 200104364 | A2 | 20020429 | HU | 2001-4364 | | 19991111 | < |
| JP 2002530374 | T | 20020917 | JP | 2000-583860 | | 19991111 | < |
| JP 3593037 | B2 | 20041124 | | | | | |
| AU 763960 | B2 | 20030807 | AU | 2000-13825 | | 19991111 | < |
| GB 2343893 | A | 20000524 | GB | 1999-27227 | | 19991117 | < |
| GB 2343893 | В | 20020109 | | | | | |
| FR 2786185 | A1 | 20000526 | FR | 1999-14495 | | 19991118 | < |
| US 6166015 | Α | 20001226 | US | 1999-442656 | | 19991118 | < |
| IT 99TO1009 | A1 | 20010521 | IT | 1999-TO1009 | | 19991119 | < |
| IT 1307900 | B1 | 20011119 | | | | | |
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| ES 2158814 | B1 | 20020316 | | | | | |
| ZA 2001003942 | A | 20020815 | ZA | 2001-3942 | | 20010515 | < |
| NO 2001002411 | A | 20010516 | NO | 2001-2411 | | 20010516 | < |
| IN 2001CN00693 | A | 20050304 | IN | 2001-CN693 | | 20010518 | |
| PRIORITY APPLN. INFO.: | | | US | 1998-109297P | P | 19981120 | |
| | | | WO | 1999-EP8665 | · W | 19991111 | |
| OTHER SOURCE(S): | MARPAT | 133:4595 | | | | | |

R4

GI

AB Title compds. [I; R4 = CHR1Z1Z2R2; R1 = H or alkyl; R2 = (hetero)aryl; Z = NZ3R3 or N+RZ3R3 X-; R = (un)substituted alkyl; R3 = (hetero)aryl; X- = pharmaceutically acceptable anion; Z1 = (un)substituted NHCO and Z2 = (heteroatom-interrupted)(oxo)alkylene, etc.; Z1 = (un)substituted NHCONH, -NHSO2, -NHCO2, etc. and Z2 = bond, (heteroatom-interrupted)(oxo)alkylene, alkenylene, alkynylene] were prepared Thus, I (R4 = CH2NHR5, Z = NCH2C6H3C12-2,3)(II; R5 = H) was amidated by 3-[4-(4-methoxyphenyl)-2-pyrimidinyl]propionic acid (preparation each given) to give II [R5 = COCH2CH2Z2C6H4(OMe)-4, Z2 = pyrimidine-2,5-diyl]. Data for biol. activity of I were given.

IT 270912-02-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-pyrrolidinylmethylalkanoamides and analogs as CCR-3 receptor antagonists)

RN 270912-02-2 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, N-[[1-[(3,4-dichlorophenyl)methyl]-3 pyrrolidinyl]methyl]-5,6-dimethyl-, mono(trifluoroacetate) (9CI) (CA
 INDEX NAME)

CM 1

CRN 270912-01-1 CMF C23 H26 Cl2 N4 O

CM 2

CRN 76-05-1 CMF C2 H F3 O2

ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:84617 HCAPLUS

DOCUMENT NUMBER:

132:122625

TITLE:

Preparation of substituted benzimidazole antiviral

agents

INVENTOR (S):

Yu, Kuo-long; Civiello, Rita Lee; Krystal, Mark R.;

Kadow, Kathleen F.; Meanwell, Nicholas A.

PATENT ASSIGNEE(S):

Bristol-Myers Squibb Company, USA

SOURCE:

PCT Int. Appl., 85 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA | | | | | | | | APPLICATION NO. | | | | | | | | | | |
|----|-----------------------|-----|-----|-----|-----|------|------|-----------------|---------------|------|-------|-------|-----|-----|------|-------|-------|--|
| WO | | | | | | | | | | | | | | | | 9990 | 720 < | |
| | | AL, | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | HU, | | | | | | |
| | | ΚE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MD, | MG, | MK, | MN, | |
| | | MW, | MX, | NO, | NZ, | ΡL, | PT, | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | |
| | | - | | | | • | • | YU, | • | | | | | | | | | |
| | RW: | GH, | | | | | | | | | | | | | | | | |
| | | | | - | | • | • | • | • | • | • | PT, | SE, | BF, | ВJ, | CF, | CG, | |
| | | - | | • | | • | • | MR, | • | • | • | | | | | | | |
| CA | 2338 | 147 | | | A1 | : | 2000 | 0203 | | CA 1 | 999- | 2338: | 147 | | 19 | 9990 | 720 < | |
| | | | | | | | | | AU 1999-50809 | | | | | | 19 | 9990 | 720 < | |
| ΑU | 7419 | 46 | • | | B2 | | 2001 | 1213 | | | | | | | | | | |
| ΕP | 1098 | 644 | | | A1 | : | 2001 | 0516 | | EP 1 | 999- | 9353 | 02 | | 1.9 | 9990 | 720 < | |
| | R: | AT, | BE, | CH, | DΕ, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, | |
| | | ΙE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | | |
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| US | 2003139450 A1 2003072 | | | | | | 0724 | • | US 2 | 002- | 28982 | 29 | | 20 | 0021 | L07 < | | |
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| US | S 2005038085 | | | | A1 | : | 2005 | 0217 | • | US 2 | 004- | 93492 | 21 | | 20 | 0409 | 903 | |

US 7030140 B2 20060418

PRIORITY APPLN. INFO.: US 1998-93387P P 19980720 US 1999-354958 B1 19990716

Ι

US 1999-354958 B1 19990716 WO 1999-US12398 W 19990720 US 2002-289829 A3 20021107

OTHER SOURCE(S): MARPAT 132:122625

GI

$$R^2$$
 R^3
 R^4
 $X-Y$
 R^8
 R^8
 R^7
 R^8
 R^7

$$R^2$$
 N
 $Z-N$
 R^8
 R^7
 R^6
 R^6
 R^6
 R^6
 R^6
 R^6

AB The title compds. [I and II; R1-R8 = H, alkyl, NO2, etc.; X = straight, branched or cyclic C2-12 alkyl, alkenyl, alkynyl; Y = (un)substituted Ph, dioxolane, pyridine, etc.; XY = CH2Ph, CH2COPh, CH2CHOHPh, etc.; Z = (CR12R13)n; n = 1-4; R12, R13 = H, straight, branched or cyclic alkyl], useful in the treatment of viral infections, particularly, for the treatment of respiratory syncytial virus infection, were prepared Thus, coupling 1-(1H-benzimidazol-2-ylmethyl)-1H-benzotriazole with 2-dimethylaminoethyl chloride hydrochloride in the presence of NaH in THF afforded 23% I [Z = CH2: XY = (CH2)2NMe2; R1-R8 = H] which showed 100% HEp-2 cell protection against RSV at 4 μg/mL.

IT 256365-87-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of substituted benzimidazole antiviral agents)

RN 256365-87-4 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-(1H-benzotriazol-1-ylmethyl)-N-methyl-(9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

3

ACCESSION NUMBER:

1999:672796 HCAPLUS

DOCUMENT NUMBER:

131:299286

TITLE:

Preparation of amidine compounds as Xa inhibitors Katoh, Susumu; Yokota, Katsuyuki; Hayashi, Mikio

PATENT ASSIGNEE(S):

Japan Tobacco Inc., Japan

PCT Int. Appl., 280 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

INVENTOR (S):

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA' | TENT | ENT NO. KIND9952895 A1 | | | | | | | | | | | | | | | | | |
|-----|-------|------------------------|-----|-----|-----|-----|------|------|-----|------|--------|-------|-------|-----|-----|-------|-----|------------------|--|
| | 9952 | 895 | | | A1 | | 1999 | 1021 | | WO 1 | 999- | JP19 | 00 | | 1: | 99904 | | | |
| | W: | ΑE, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | ВG, | BR, | BY, | CA, | CH, | CN, | CU, | CZ, | | |
| | | DE, | DK, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | | |
| | | | | | | | | | | | LU, | | | | | | | | |
| | | | | | | | | | | | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | | |
| | | | | UG, | | | | | | | | | | | | | | | |
| | RW: | | | | | | | | | | ZW, | | | | | | | | |
| | | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | CG, | | |
| | | CI, | CM, | GΑ, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | | | | | |
| | 2327 | | | | A1 | | 1999 | 1021 | 1 | CA 1 | .999- | 2327 | 188 | | 1: | 99904 | 409 | < | |
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| | 7525 | | | | | | | | | | | | | | | | | | |
| SG | 7471 | 7 | | | A1 | | 2000 | 0822 | | SG 1 | .999- | 1654 | | | 1 | 99904 | 409 | < | |
| EP | 1070 | 714 | | | A1 | | 2001 | 0124 | | | 999- | | | | | 99904 | | | |
| EP | 1070 | | | | | | | | | | | | | | | | | | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| | | | FI, | | | | | | | | | | | | | | | | |
| | 2000 | | 4 | | | | | | , | TR 2 | 000- | 2000 | 02904 | 4 | 1 | 99904 | 409 | < | |
| BR | 9910 | 122 | | | Α | | 2001 | 1016 | | BR 1 | 999- | 1012 | 2 | | 1: | 99904 | 409 | < - - | |
| HU | 2001 | 0113 | 7 | | A2 | | 2001 | 1028 | | HU 2 | 001- | 1137 | | | 19 | 99904 | 409 | < | |
| NZ | 5081 | 01 | | | Α | | 2002 | 1220 | | | 999- | | | | | 99904 | 409 | < | |
| | 2201 | | | | | | 2003 | | | | 000- | | | | | 99904 | 409 | < | |
| | 2.726 | | | | T | | 2004 | | | | 999- | | | | | 99904 | 109 | | |
| | 2000 | | | | | | 2000 | | | JP 1 | 999- | 1034: | 32 | | 19 | 99904 | 112 | < | |
| | 3283 | | | | | | 2002 | | | | | | | | | | | | |
| | 6562 | | | | | | 2003 | | | | 000- | | | | | 0001 | | | |
| | 2000 | | | | | | 2000 | | | | 000- | | | | | 0001 | | | |
| | 2000 | | | | | | 2001 | | | | 000- | | | | | 00013 | | < | |
| IN | 2000 | CN00 | 527 | | Α | : | | | | | 000-0 | | | | | 0001 | | | |
| US | 2004 | 00609 | 99 | | A1 | . : | 2004 | 0108 | 1 | US 2 | 003-3 | 3864 | 58 | | 20 | 00303 | 313 | | |

PRIORITY APPLN. INFO.: JP 1998-116233 A 19980410 JP 1998-237869 A 19980825

JP 1998-237869 A 19980825 WO 1999-JP1900 W 19990409

US 2000-647847 A3 20001006

OTHER SOURCE(S):

MARPAT 131:299286

GI

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- AB Title compds. R1R2NCR:NR3 [wherein R1, R2 and R3 are the same or different and each represents hydrogen, hydroxy, lower alkyl or aryl; and R represents formulas Q, Q1, and Q2; A = OCH2, OCH2CH2, SO2NH, ; R4 = H, C1; R5 = H, CO2H, COOEt, COOMe; B = C6H5CH2SO2, CH2CH2OH, 4-pyridyl, 4-quinolinyl, 4-(2,6-dimethylpyridyl), 4-(2-methylpyridyl), 4-imidazolyl; G = 4-CH2N(4-COC6H4COOH)C6H4O, CH2O, CH2N(COCOOEt); F = (un)substituted aryl; n = 1, 2; D = arylcarbamoyl, OMe, H, C6H5CH2; etc.], stereoisomers, and salts thereof or prodrugs of the same are prepared and tested as factor Xa inhibitors and anticoagulants and usable in preventing and/or treating diseases caused by blood coagulation or thrombi. Thus, the title compound I was prepared
- IT 247131-15-3P 247131-65-3P 247131-66-4P 247131-67-5P 247132-26-9P 247134-03-8P 247134-50-5P 247134-51-6P 247134-52-7P 247141-93-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of amidine compds. as Xa inhibitors)

RN 247131-15-3 HCAPLUS

Absolute stereochemistry.

●2 HCl

RN 247131-65-3 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[[5-(aminoiminomethyl)-2-[[4-[[1-(1iminoethyl)-4-piperidinyl]oxy]phenoxy]methyl]-1H-benzimidazol-1yl]acetyl]amino]methyl]-, methyl ester, dihydrochloride, trans- (9CI) (CA
INDEX NAME)

Relative stereochemistry.

●2 HCl

RN 247131-66-4 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[[5-(aminoiminomethyl)-2-[[4-[[1-(1-iminoethyl)-4-piperidinyl]oxy]phenoxy]methyl]-1H-benzimidazol-1-yl]acetyl]amino]methyl]-, dihydrochloride, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

$$HO_2C$$
 H_2N
 N
 N
 N
 N
 N
 N

HCl

RN247131-67-5 HCAPLUS

Cyclohexanecarboxylic acid, 4-[[[[5-[(hydroxyamino)iminomethyl]]-2-[[4-[[1-CN (1-iminoethyl) -4-piperidinyl]oxy]phenoxy]methyl]-1H-benzimidazol-1yl]acetyl]amino]methyl]-, methyl ester, dihydrochloride, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

●2 HCl

RN

247132-26-9 HCAPLUS Acetic acid, [[[[5-(aminoiminomethyl)-1-[2-oxo-2-[[(1S)-1-CN phenylethyl]amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-4-piperidinyl]oxy]phenyl]amino]sulfonyl]-, dihydrochloride (9CI) INDEX NAME)

Absolute stereochemistry.

•2 HCl

RN 247134-03-8 HCAPLUS

CN Benzoic acid, 4-[[[[5-(aminoiminomethyl)-1-[2-oxo-2-[[(1S)-1-phenylethyl]amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-4-piperidinyl]oxy]phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 247134-50-5 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[[5-(aminoiminomethyl)-2-[[4-[[1-(1-iminoethyl)-4-piperidinyl]oxy]phenoxy]methyl]-1H-benzimidazol-1-yl]acetyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 247134-51-6 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[[5-(aminoiminomethyl)-2-[[4-[[1-(1-iminoethyl)-4-piperidinyl]oxy]phenoxy]methyl]-1H-benzimidazol-1-yl]acetyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

$$HO_2C$$
 H_2N
 NH
 NH

RN 247134-52-7 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[[5-[(hydroxyamino)iminomethyl]-2-[[4-[[1-(1-iminoethyl)-4-piperidinyl]oxy]phenoxy]methyl]-1H-benzimidazol-1-yl]acetyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 247141-93-1 HCAPLUS

CN Benzoic acid, 4-[[[[5-(aminoiminomethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-[[1-(1-iminoethyl)-1-[2-oxo-2-[(1-phenylethyl)amino]ethyl]-1H-benzimidazol-2-yl]methyl]

4-piperidinyl]oxy]phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & \\ & & & & \\ NH & & & & \\ H_2N-C & & & \\ & & & \\ NH & & & \\ CH_2-N & & & \\ & & & \\ CH_2-N-CH-Me & & \\ \end{array}$$

IT 247132-62-3P 247132-63-4P 247132-64-5P 247133-58-0P 247133-59-1P 247133-60-4P

247133-61-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of amidine compds. as Xa inhibitors)

RN 247132-62-3 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-[[[5-cyano-1-[2-oxo-2-[[(1S)-1-phenylethyl]amino]ethyl]-1H-benzimidazol-2-yl]methyl][(phenylmethoxy)carbonyl]amino]phenoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 247132-63-4 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-[[[5-cyano-1-[2-oxo-2-[[(1S)-1-phenylethyl]amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-(methoxycarbonyl)benzoyl]amino]phenoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 247132-64-5 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-[[[5-(aminoiminomethyl)-1-[2-oxo-2-[[(1S)-1-phenylethyl]amino]ethyl]-1H-benzimidazol-2-yl]methyl][4-(methoxycarbonyl)benzoyl]amino]phenoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 247133-58-0 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-[[5-cyano-1-[2-[[[trans-4-(methoxycarbonyl)cyclohexyl]methyl]amino]-2-oxoethyl]-1H-benzimidazol-2-yl]methoxy]phenoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A

__OBu-t

RN 247133-59-1 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-[[5-(aminoiminomethyl)-1-[2-[[[trans-4-(methoxycarbonyl)cyclohexyl]methyl]amino]-2-oxoethyl]-1H-benzimidazol-2-yl]methoxy]phenoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-B

__OBu-t

RN 247133-60-4 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-[[5-[imino(methylamino)methyl]-1-[2-[[trans-4-(methoxycarbonyl)cyclohexyl]methyl]amino]-2-oxoethyl]-1H-benzimidazol-2-yl]methoxy]phenoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A

PAGE 1-B

__OBu-t

CN

RN 247133-61-5 HCAPLUS

1-Piperidinecarboxylic acid, 4-[4-[[5-[(hydroxyamino)iminomethyl]-1-[2-[[trans-4-(methoxycarbonyl)cyclohexyl]methyl]amino]-2-oxoethyl]-1H-benzimidazol-2-yl]methoxy]phenoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A

PAGE 1-B

_OBu-t

REFERENCE COUNT:

28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS

01/17/2007

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:617950 HCAPLUS

DOCUMENT NUMBER: 131:258916

TITLE: Method for production of coloring substances and new

compounds

INVENTOR(S): Kobayashi, Suguru; Kato, Takashi PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE -----_ _ _ _ _____ -----_____ JP 11263918 Α 19990928 JP 1998-65897 19980316 <--PRIORITY APPLN. INFO.: JP 1998-65897 19980316

OTHER SOURCE(S): MARPAT 131:258916

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB The substances useful as photog. sensitizing dyes, are obtained by linking a dehydrocondensable group-containing colorant with a counter colorant compound in the presence of P compound such as R1R2PO(OR3) (R1 = aryl; R2 = aryl or living aryloxy group; R3 = aryloxy living group together with the bonding O) in a solvent. Thus, adding a solution of 11 mg KOH in 1 mL water to 100 mg compound I, adding 20 mL DMSO, mixing with 53 mg tetrabutylammonium bromide for 1 h, combining with a solution of 115 mg compound II and C6H5P(O)(C6H4NO2-4)2 in 10 mL DMSO and 100 mg mol. sieve 4A, mixing at room temperature for 20 h and working up gave compound III.
- IT 226919-23-9P 244793-36-0P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(photog. sensitizers; dehydrocondensation reaction in manufacture of bimol. linked dyes for photog. sensitizers)

- RN 226919-23-9 HCAPLUS
- CN Benzothiazolium, 2-[3-[5,6-dichloro-1-[2-[[3-[6-chloro-2-[3-[5-chloro-1-ethyl-1,3-dihydro-3-(4-sulfobutyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-3-ethyl-1H-benzimidazolium-1-yl]-1-oxopropyl]amino]ethyl]-3-ethyl-1,3-dihydro-2H-benzimidazol-2-ylidene]-1-propenyl]-3-ethyl-5-phenyl-, inner salt, bromide (9CI) (CA INDEX NAME)
- *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
- RN 244793-36-0 HCAPLUS
- CN Benzothiazolium, 2-[3-[5,6-dichloro-1-[[[3-[6-chloro-2-[3-[5-chloro-1-ethyl-1,3-dihydro-3-(4-sulfobutyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-3-ethyl-1H-benzimidazolium-1-yl]-1-oxopropyl]amino]methyl]-3-ethyl-1,3-dihydro-2H-benzimidazol-2-ylidene]-1-propenyl]-3-ethyl-5-phenyl-, bromide (9CI) (CA INDEX NAME)

• Br-

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L9 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1999:511140 HCAPLUS

DOCUMENT NUMBER:

131:157771

TITLE:

Preparation of five-membered, benzo-condensed

heterocycles as antithrombotics

INVENTOR(S):

Ries, Uwe; Hauel, Norbert; Mihm, Gerhard; Priepke,

Henning; Binder, Klaus; Stassen, Jean Marie; Wienen,

Wolfgang; Zimmermann, Rainer

PATENT ASSIGNEE(S):

Boehringer Ingelheim Pharma Kg, Germany

SOURCE:

PCT Int. Appl., 250 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | | APPLICATION NO. | DATE | | | |
|------------------------|---|-------------------------|----------------|--|--|--|
| | | | | | | |
| WO 9940072 | A1 19990812 | WO 1999-EP537 | 19990128 < | | | |
| W: AL, AM, AT, | AU, AZ, BA, BB, | BG, BR, BY, CA, CH, CN, | CŲ, CZ, DE, | | | |
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| KE, KG, KP, | KR, KZ, LC, LK, | LR, LS, LT, LU, LV, MD, | MG, MK, MN, | | | |
| MW, MX, NO, | NZ, PL, PT, RO, | RU, SD, SE, SG, SI, SK, | SL, TJ, TM, | | | |
| TR, TT, UA, | UG, UZ, VN, YU, | ZW, AM, AZ, BY, KG, KZ, | MD, RU, TJ, TM | | | |
| | | UG, ZW, AT, BE, CH, CY, | | | | |
| | • | MC, NL, PT, SE, BF, BJ, | | | | |
| , , , | GW, ML, MR, NE, | | | | | |
| , , , | | DE 1998-19804085 | 19980203 < | | | |
| | | DE 1998-19834325 | | | | |
| | _ , | CA 1999-2319494 | | | | |
| | | AU 1999-27201 | | | | |
| | | EP 1999-907437 | | | | |
| | | GB, GR, IT, LI, LU, NL, | | | | |
| | LV, FI, RO | GB, GR, 11, 11, 10, N1, | SE, MC, PI, | | | |
| | · · | TD 2000 F30F02 | 10000120 | | | |
| | | JP 2000-530502 | | | | |
| PRIORITY APPLN. INFO.: | | DE 1998-19804085 | A 19980203 | | | |

DE 1998-19834325 WO 1999-EP537

19980730 Α

19990128

OTHER SOURCE(S):

GI

MARPAT 131:157771

Ι

$$\begin{array}{c|c}
R^1 \\
X \\
Y
\end{array}$$

$$\begin{array}{c|c} & \text{Me} & \text{NH} \\ & & \text{N} \\ & & \text{N} \\ & & \text{N} \\ & & \text{NH}_2 \\ & & \text{NH}_2$$

Title compds. [I; R = 5-C6H5SO2NH, 6-C6H5SO2NH, 5-C6H5NHSO2, AB 5-C6H5SO2N(CH2COOEt), 5-C6H5SO2N(CH3), 5-C6H5N(CH2CH2CH2COOEt)CO, 5-C6H5, CH3N(C6H5)CO, 8; R1 = H, 7-CH3, 3-Br, 3-EtO; R2 = C(:NH)NH2; A = CH2, NH; X = CH, MeN, EtOCOCH2CH2N, O, S, NCH2CO2H; Y = N, CH, CH:CH; Z = CH, N; dotted bond = single, double in relation to X; A is attached at 2,or 8 position depending on the heterocyclic ring] and their tautomers, stereoisomers, mixts. and their physiol. compatible salts with inorg. or organic acids or bases are prepared and title compds in which R2 is a cyano group, present valuable intermediate products for the production of the remaining compds. of the general formula I, with R2 is amidino, which have valuable pharmacol. properties, especially an antithrombotic activity. Thus, the title compound II was prepared

ΙI

IT 236415-43-3P 236415-45-5P 236415-78-4P 236415-85-3P 236415-88-6P 236415-94-4P 236416-01-6P 236416-02-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of five-membered benzo-condensed heterocycles as antithrombotics)

RN 236415-43-3 HCAPLUS

CN Glycine, N-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[2-(dimethylamino)ethyl](phenylsulfonyl)amino]-1H-benzimidazol-1-yl]acetyl]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 236415-45-5 HCAPLUS

CN Glycine, N-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[2-(dimethylamino)ethyl](phenylsulfonyl)amino]-1H-benzimidazol-1-yl]acetyl]-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 236415-78-4 HCAPLUS

CN Glycine, N-[4-[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[2-(dimethylamino)ethyl](methylsulfonyl)amino]-1H-benzimidazol-1-yl]-1-oxobutyl]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 236415-85-3 HCAPLUS

CN Glycine, N-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[2-(diethylamino)ethyl](phenylsulfonyl)amino]-1H-benzimidazol-1-yl]acetyl]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 236415-88-6 HCAPLUS

CN Glycine, N-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[2-(diethylamino)ethyl](phenylsulfonyl)amino]-1H-benzimidazol-1-yl]acetyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 236415-94-4 HCAPLUS

CN Glycine, N-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[(1-methyl-2-piperidinyl)methyl](phenylsulfonyl)amino]-1H-benzimidazol-1-yl]acetyl]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN 236416-01-6 HCAPLUS

CN Glycine, N-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[(1-methyl-2-piperidinyl)methyl](phenylsulfonyl)amino]-1H-benzimidazol-1-yl]acetyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 236416-02-7 HCAPLUS

CN Glycine, N-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-5-[[[2-(dimethylamino)ethyl]amino]carbonyl]-1H-benzimidazol-1-yl]acetyl]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

IT 236417-38-2P 236417-39-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of five-membered benzo-condensed heterocycles as antithrombotics)

236417-38-2 HCAPLUS RN

Glycine, N-[[2-[(4-cyanophenyl)methyl]-5-[(phenylsulfonyl)amino]-1H-CN benzimidazol-1-yl]acetyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 236417-39-3 HCAPLUS

Glycine, N-[[2-[(4-cyanophenyl)methyl]-5-[[(1-methyl-2-CN piperidinyl)methyl](phenylsulfonyl)amino]-1H-benzimidazol-1-yl]acetyl]-, ethyl ester (9CI) (CA INDEX NAME)

REFERENCE COUNT:

10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Ь9 HCAPLUS COPYRIGHT 2007 ACS on STN ANSWER 14 OF 32

ACCESSION NUMBER:

1998:394350 HCAPLUS

DOCUMENT NUMBER:

129:68032

TITLE:

Preparation of oxadiazole peptide analogs as serine

protease inhibitors

INVENTOR (S):

Gyorkos, Albert; Spruce, Lyle W.

PATENT ASSIGNEE(S):

Cortech, Inc., USA; Gyorkos, Albert; Spruce, Lyle W.

SOURCE:

PCT Int. Appl., 187 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

FAMILY ACC. NUM. COUNT:

English

18

PATENT INFORMATION:

| PATENT NO. | | KIND | DATE | APPLICATI | ON NO. | DATE |
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| WO 9824806 WO 9824806 | | | 19980611 19981015 | WO 1997-U | JS21636 | 19971205 < |
| W: AL, DK, KZ, PL, | EE, ES, LC, LK, | AU, AZ, FI, GB, LR, LS, RU, SD, | BA, BB, GE, GH, LT, LU, | BG, BR, BY, HU, ID, IL, LV, MD, MG, SI, SK, SL, | IS, JP, KE, MK, MN, MW, | KG, KP, KR, MX, NO, NZ, |

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              IE, SI, LT, LV, FI, RO
     BR 9713684
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                                  20000328
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     JP 2001507679
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PRIORITY APPLN. INFO.:
                                               US 1996-760916
                                                                     A 19961206
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                                                                     A 19961206
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                                                                     A 19961206
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                                                                        19961206
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                                                                     Α
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                                                                     Α
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                                                                     Α
                                                                        19971204
                                               US 1997-985201
                                                                     Α
                                                                        19971204
                                                                     Α
                                               US 1997-985298
                                                                        19971204
                                               US 1994-345820
                                                                     A2 19941121
                                               WO 1997-US21636
                                                                     W 19971205
OTHER SOURCE(S):
                          MARPAT 129:68032
GI
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01/17/2007

The present invention relates to certain substituted oxadiazole, thiadiazole and triazole peptide analogs I [X, Y = independently O, S, (un) substituted N; Z = serine protease binding moiety, preferably a human neutrophil elastase binding moiety; R1 = (un) substituted alkyl, alkenyl, alkynyl; OH, amino, alkylamino, dialkylamino, cycloalkyl, alkylcycloalkyl, alkenylcycloalkyl, cycloalkenyl, alkylcycloalkenyl, alkenylcycloalkyl, c5-12 arylalkyl, C5-12 arylalkenyl, fused C5-12 arylcycloalkyl, alkyl fused C5-12 arylcycloalkyl) which are useful as inhibitors of serine proteases. Thus, Swern oxidation of reduced pseudopeptide II (Z = PhCH2O2C), prepared in 8 steps from 3S-(benzyloxycarbonylamino)-2-acetoxy-4-methylpentanenitrile, 3-methylphenylacetic hydrazide, and Z-Val-Pro-OH, gave 74% desired oxadiazole III. III inhibited human neutrophil elastase with IC50 = 0.025 nM in an in vitro assay.

IT 208846-93-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of oxadiazole peptide analogs as serine protease and human neutrophil elastase inhibitors)

RN 208846-93-9 HCAPLUS

CN 1H-Benzimidazole-1-acetamide, N-[(1S)-2-methyl-1-[[5-[(3-methylphenyl)methyl]-1,3,4-oxadiazol-2-yl]carbonyl]propyl]-2-(2-pyridinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:579714 HCAPLUS

DOCUMENT NUMBER: 127:248130

TITLE: Preparation of N-[4-(4-benzimidazolyl)hexahydrodiazepi

no-2-arylbutyl]benzamides as histamine and tachykinin

APPLICATION NO.

DATE

receptor antagonists

INVENTOR(S): Maynard, George D.; Kane, John M.; Kudlacz, Elizabeth

M.; Dalton, Christopher R.; Santiago, Braulio;

Bratton, Larry D.

PATENT ASSIGNEE(S): Hoechst Marion Roussel, Inc., USA

SOURCE:

PCT Int. Appl., 176 pp. CODEN: PIXXD2

DATE

DOCUMENT TYPE:

Patent

LANGUAGE:

English

KIND

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

| IMILIATE NO. | | | | | millionition no. | | | | | | 21112 | | | | | | | |
|--------------|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------|---|
| WO | · | AL, DK, LK, RO, | AM, EE, LR, RU, | AT, ES, LS, SD, | AU, FI, LT, SE, | AZ, GB, LU, SG, | | 0828 BB, HU, MD, SK, | BG, IL, MG, TJ, | BR, IS, MK, TM, | BY, JP, MN, TR, | CA, KE, MW, TT, | CH, KG, MX, UA, | CN, KP, NO, UG, | CU, KR, NZ, UZ, | CZ, KZ, PL, VN | DE, LC, PT, | |
| | | | | | | | PT, | SE, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | ML, | |
| | | • | | | TD, | | | | | | | | | | | | | |
| | 2246 | | | | A1 | | 1997 | | | CA 1 | 997- | 2246 | 994 | | 1 | 9970 | 129 | < |
| | 2246 | | | | С | | 2002 | 0430 | | | | | | | | | | • |
| AU | 9722 | 531 | | | Α | | 1997 | 0910 | | AU 1 | 997- | 2253 | 1 | | 1 | 9970 | 129 | < |
| AU | 7087 | 38 | | | B2 | | 1999 | | | | | | | | | | | |
| EP | 8883 | 38 | | | A1 | | 1999 | 0107 | : | EP 1 | 997- | 9057 | 00 | | 1 | 9970 | 129 | < |
| EP | 8883 | 3.8 | | | B1 | | 2004 | 1117 | | | | | | | | | | |
| | R: | • | | | • | | ES, RO | • | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, | |
| CN | 1211 | 248 | | | Α | | 1999 | 0317 | | CN 1 | 997- | 1923 | 83 | | 1 | 9970 | 129 | < |
| BR | 9710 2000 2826 | 712 | | | Α | | 1999 | 0817 | | BR 1 | 997- | 1071 | 2 | | 1 | 9970 | 129 | < |
| JP | 2000 | 5050 | 83 | - | T | | 2000 | 0425 | | JP 1 | 997- | 5301 | 70 | | 1 | 9970 | 129 | < |
| AT | 2826 | 09 | | | T | | 2004 | 1215 | | AT 1 | 997- | 9057 | 00 | | 1 | 9970 | 129 | |
| | 9701 | | | | Α | | 1997 | 0826 | | ZA 1 | 997- | 1321 | | | 1 | 9970 | 217 | < |
| TW | 4405 | 65 | | | В | | 2001 | 0616 | 1 | TW 1 | 997- | 8610 | 1884 | | 1 | 9970 | 218 | < |
| NO | 9803 | 829 | | | Α | | 1998 | 1020 | : | NO 1 | 998- | 3829 | | | 1 | 9980 | 820 | < |
| IORIT | Y APP | LN. | INFO | .: | | | | | | US 1 | 996- | 6045 | 90 | | A 1 | 9960 | 221 | |
| | | | | | | | | | | US 1 | 997- | 7819 | 97 | | A 1 | 9970 | 106 | |
| | | | | • | | | | | , | WO 1 | 997- | US16 | 01 | | W 1 | 9970 | 129 | |
| HER SO | OURCE | (s): | | | MARI | РΔТ | 127: | 2481 | 3.0 | | | | | | | | | |

OTHER SOURCE(S):

MARPAT 127:248130

GI

$$R^3$$
 R^2 R^4 R^4 R^4

AB Title compds. [I; R2 = Z1CH2CHR1CH2NMeCOZ2R; R = H, 1,2,4-triazol-4-yl or (5-substituted) 1-tetrazolyl; R1 = (un)substituted Ph, -naphthyl, -pyridyl, -thienyl; R3 = H or 1-3 of halo, alkyl, alkoxy; R4 = H, alkyl, (CH2)pR5, alkoxyalkyl, etc.; R5 = 2-furyl, 2-pyridyl, etc.; Z1 = hexahydro-1,4-diazepine-1,4-diyl; Z2 = (un)substituted phenylene; p = 1 or 2] were prepared as histamine and tachykinin receptor antagonists (no data). Thus, 4-[1-(2-ethoxyethyl)-2-benzimidazolyl]hexahydro-1,4-diazepine was N-alkylated by MeO2SOCH2CH2CHR1CH2NMeCOR (R = 3,4,5-trimethoxyphenyl, R1 = C6H4F-4) (preparation each given) to give title compound II.

II

IT 192941-18-7P

RN

CN

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of N-[4-(4-benzimidazolyl)hexahydrodiazepino-2-arylbutyl]benzamides as histamine and tachykinin receptor antagonists) 192941-18-7 HCAPLUS

1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-[1-[2-(methylamino)-2-oxoethyl]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

=> LOG Y

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION 102.45 FULL ESTIMATED COST 274.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE -11.70 -11.70

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